Land Conservation Department

Plan Package

[redacted] STORAGE STR. 1999

AS BUILT DOCUMATION ON SHEETS 2, 6, & 7

Brown County Land Conservation Department

CONSTRUCTION PLAN

Practice: WASTE STORAGE FACILITY - 313
Owner: [redacted] Phone: 920-336-7919 OR 983-1061
Address: 3870 DICKINSON ROAD DEPERE, WI. 54115
Township: LEDGE VIEW County: BROWN
Section: 33 Township: 23 N Range: 21 E
Fld. Off: GREEN BAY Off.Phone: 391-4620

Plan Index

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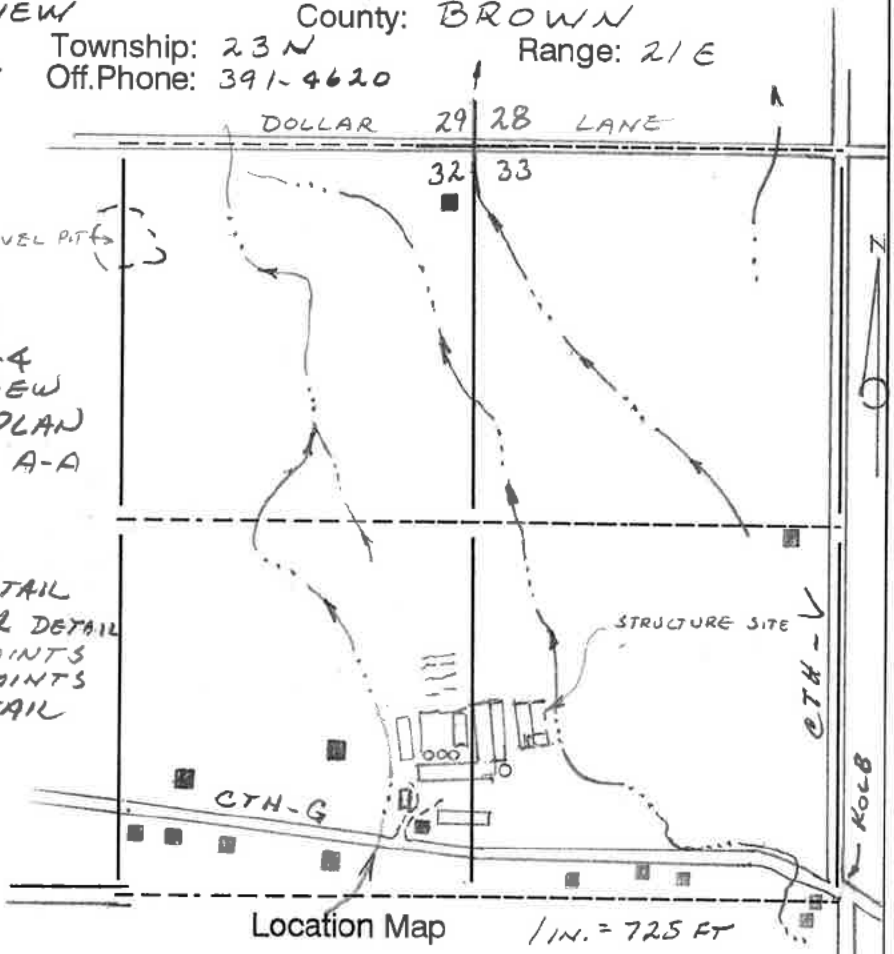


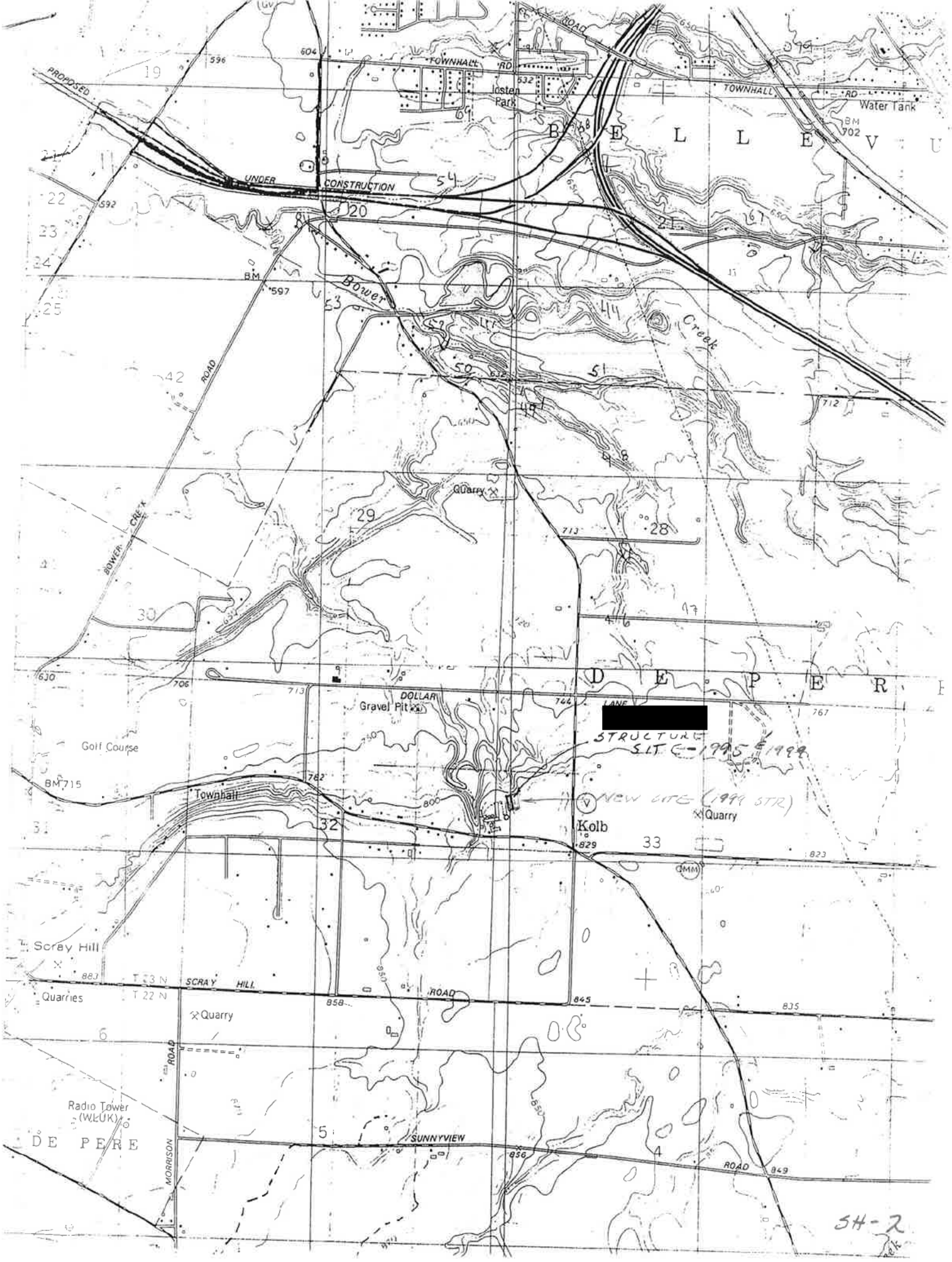
Location Map 1 IN. = 725 FT

** NOTICE TO LANDOWNERS AND CONTRACTORS REGARDING UTILITIES **
No representation is made by the Brown County Land Conservation department as to the existence or nonexistence of underground hazards. Prior to the start of construction the owners of utilities must be notified of the pending construction. You will be liable for damages resulting from construction activities!

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE
I/we have reviewed and do accept the attached plans. I/we agree to have this project constructed in accordance with these plans and specifications and to notify all affected utility companies. I/we agree that any changes made during construction will be pre-approved by an authorized Land Conservation agent.

SIGNED:		DATE:	
DESIGNED:	[illegible]	DATE:	3/99 Feb-98
CHECKED:	[illegible]	DATE:	5/23/99
APPROVED:	[illegible] PROJECT TECH.	DATE:	5/24/99
APPROVED:		DATE:	

SHEET 1 OF 16


PROPOSED
TOWNHALL RD.
Josten Park
TOWNHALL RD.
Water Tank
BM 702
BELLEVUE
UNDER CONSTRUCTION
BM 597
Bower Creek
ROAD
Quarry
BOWER CR'K
DEPERE
DOLLAR
Gravel Pit
LANE
[redacted]
STRUCTURE SITE - 1995 & 1999
Golf Course
BM 715
Townhall
NEW SITE (1999 STR)
Quarry
Kolb
Scray Hill
SCRAY HILL ROAD
Quarries
Quarry
T 23 N
T 22 N
Radio Tower (WLUK)
DE PERE
MORRISON ROAD
SUNNYVIEW ROAD
SH-2

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-005 REV. 11/82

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	SHEET NUMBER	WI. CONSTRUCTION SPEC. OR JOB SHEET NO.
CONCRETE				
1. 8"-WALL	CU. YDS.	109	4 THRU 11	
2. 5"-FLOOR	CU. YDS.	166	4, 5, 8, & 14	
TOTAL CONCRETE	CU. YDS	275		
HYDROFLEX WATERSTOP	LN FT	220	15	
6" PVC RIBBED WATERSTOP	LN FT	88	14	
SAND/GRAVEL FILL	CU YDS	730	4 & 8	
WHITE CURING COMPOUND	GALLONS	80	14.1	
REINFORCING STEEL				
#5 IN WALLS	LN FT	5100	9 thru 15	
#4 IN WALLS	LNFT	7626	9 THRU 15	
#4 IN FLOOR	LN FT	15,740	9 THRU 15	

ESTIMATED QUANTITIES

[redacted]

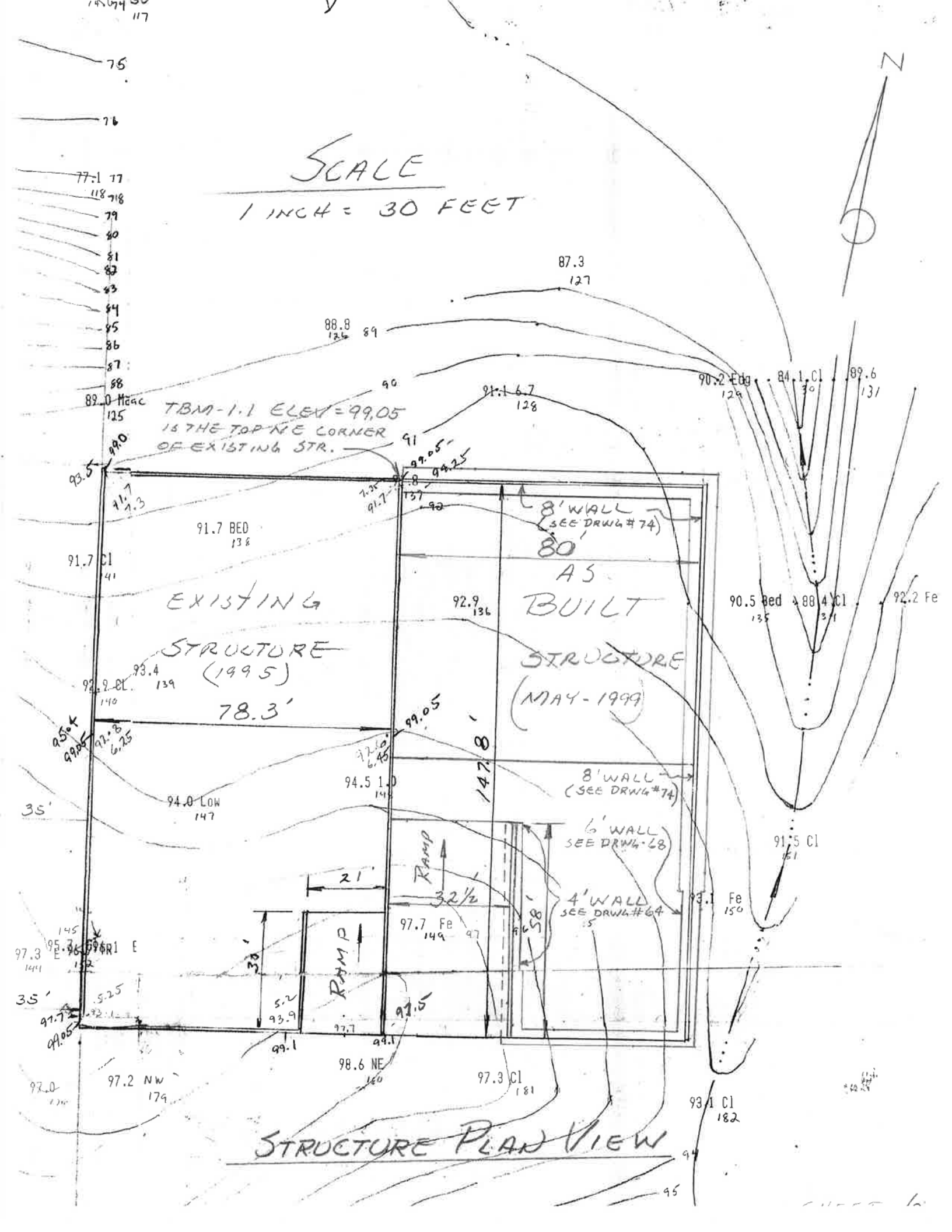
OWNER

BROWN LCC, WI

COUNTY

Designed: KAO Checked:

SHEET 3 OF ____


SCALE
1 INCH = 30 FEET
N
TBM-1.1 ELEV=99.05
IS THE TOP N E CORNER
OF EXISTING STR.
EXISTING
STRUCTURE
(1995)
78.3'
AS
BUILT
STRUCTURE
(MAY-1999)
80'
8' WALL
(SEE DRWG #74)
8' WALL
(SEE DRWG #74)
6' WALL
SEE DRWG-68
4' WALL
SEE DRWG #64
RAMP
RAMP
21'
32½
147.8'
91.7 BED
91.7 Cl
92.9
93.4
92.2 Cl.
94.0 Low
94.5
97.7 Fe
97.3 E
97.2 NW
98.6 NE
97.3 Cl
93.1 Cl
90.2 Edg
84.1 Cl
89.6
90.5 Bed
88.4 Cl
92.2 Fe
91.5 Cl
93.1 Fe
STRUCTURE PLAN VIEW

5/90
RW

CONCRETE SPEC 4 - SUMMARY

PART I. FURNISHING CONCRETE

3,500 psi

Fly ash - Type C or F

Superplasticizers O.K. (Slump 3" Pre, 8" Post)

Retarders O.K. if temperature is over 80° F

Calcium chloride not allowed

Accelerators not allowed

Entrained Air - 4-8%

Slump - 2-5"

Concrete may be supplied in either of two methods:

1. Using fly ash and/or superplasticizer - Job mix must be preapproved or supplied before pouring.

   - Must have test results to show 28 day strength
   - If mix uses superplasticizer but no fly ash, 6 bags of cement (564 lb.) must be used.
   - If fly ash is used it must be 10-20% of the mix by volume. Minimum cement content is 5 bags (470 lb.)

2. 6 bags cement (564 lb.)
   6 gal. water bag of cement is maximum permitted. This includes water in aggregate.

Batch ticket info:

Company name	Purchaser name
Date	Truck no.
Amount delivered	Time loaded
Water added at plant	Type & amount of cement*
Admixtures*	Weights of aggregates*

% moisture or weight of water in aggregates

Contractor or Inspector add:
- Water added at site
- Time concrete arrived
- Time concrete unloaded

* Materials info that will remain constant can be submitted with the job mix and need not be on the batch tickets.

SHEET 51

RW
5/90

CONCRETE - SPEC 4 - SUMMARY

PART II. - CONCRETE INSTALLATION

Expansion joint material - 1/2" min.

Rebars - Grade 40 or 60; Must be tied in place before poring starts.
Bar splicing - 30 diameters.

Waterstops - 6", center bulb, 3/16" rib min. unless shown on drawings. Use split rib in slabs. Cement or weld joints.

Subgrade - firm and damp

Form release agent (not oil) shall be applied before forms are set.

Placing - Must be within 1 1/2 hr.
No cold joints permitted. Vibrate all walls 4' or higher.
Vertical drop - 5' max. (12' with superplasticizer)

FORM REMOVAL AND FINISHING

Finish slabs with ribbed bull float or coarse broom. Sawn joints to be cut as soon as possible and not later than 24 hrs. after pouring.

Forms - Walls - 24 hrs. minimum; can't backfill for 7 days
Tank covers - 7 days min.

Form ties - Non-liquid tight walls - flush with surface
Liquid tight walls - 1/2" with cavity patched with grout, mortar mix or epoxy sealer.

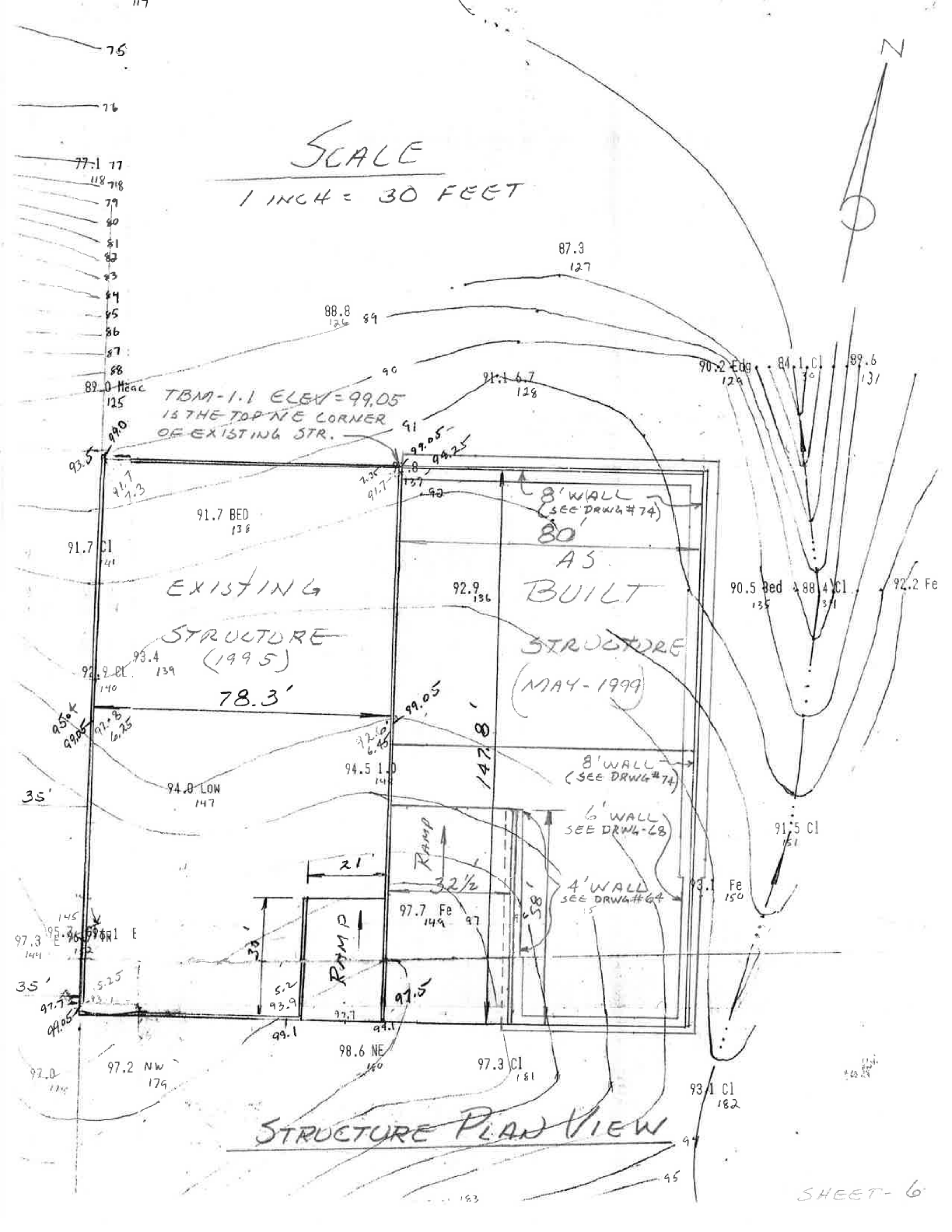
CURING - Use white curing compound; 200 sq. ft/gal. maximum; apply as soon as slab can be walked on or when wall forms are removed. Don't spray on construction joints.

HOT WEATHER (>80 F, and/or low humidity, and/or high wind)
Use set retarder or place within 45 minutes.
In extreme conditions restrict pouring to late in day.

COLD WEATHER (Ave. temp is <40 for 3 days)

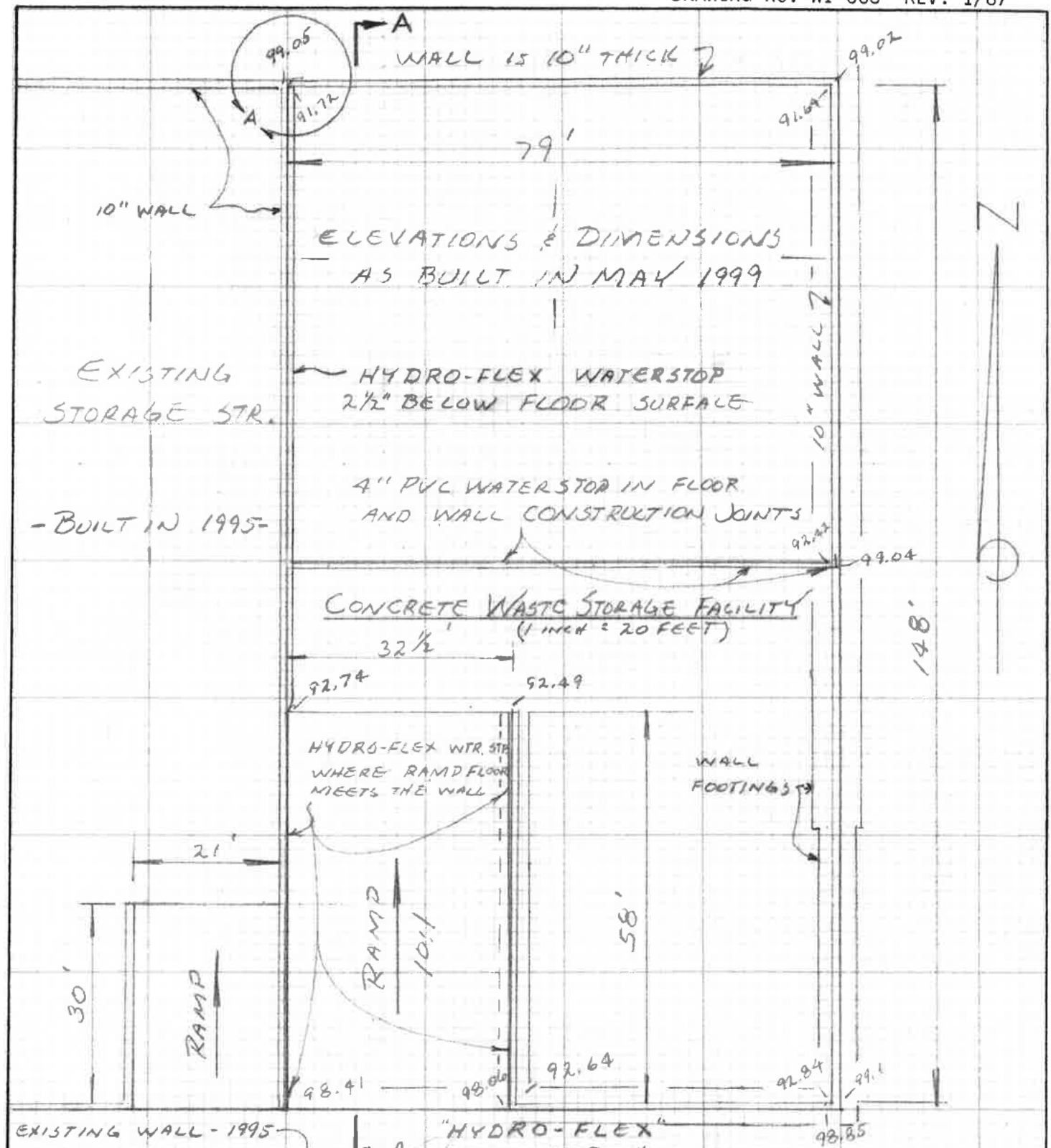
	Daily min. T. F	Insulation
Slabs -	20	6" straw or hay
	10	12" straw or hay
Walls: Above ground	30	plastic cover or tarp
	20	insulating blankets or 1" styrofoam
Below ground	20	plastic cover or tarp
	10	1" styrofoam or insulating blankets

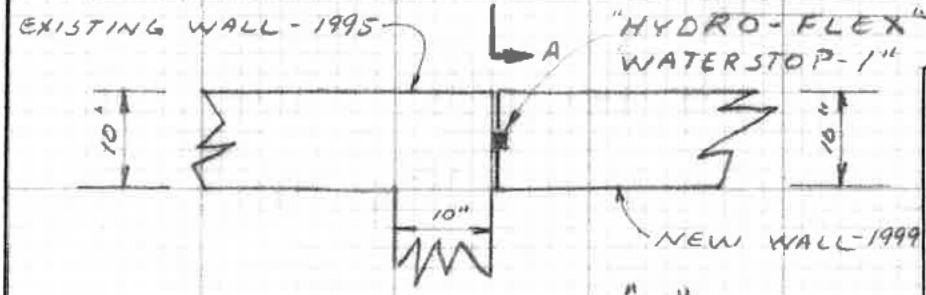
SH-5


SCALE
1 INCH = 30 FEET
N
TBM-1.1 ELEV = 99.05 IS THE TOP NE CORNER OF EXISTING STR.
EXISTING STRUCTURE (1995)
78.3'
AS BUILT STRUCTURE (MAY-1999)
80'
147.8'
8' WALL (SEE DRWG #74)
8' WALL (SEE DRWG #74)
6' WALL SEE DRWG-68
4' WALL SEE DRWG #64
RAMP
RAMP
21'
32½
30'
58'
35'
35'
91.7 BED
91.7 Cl
92.9
94.0 LOW
94.5
97.7 Fe
98.6 NE
97.2 NW
97.3 Cl
93.1 Cl
90.5 Bed
88.4 Cl
92.2 Fe
91.5 Cl
93.1 Fe
90.2 Edg
84.1 Cl
89.6
87.3
88.8
89.0
91.1
99.05
STRUCTURE PLAN VIEW
SHEET- 6

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-003 REV. 1/87





VIEW - "A"

[redacted]

OWNER

BROWN Co. LCC, WI

COUNTY

Designed: KAB Checked:

SHEET 7 OF ____

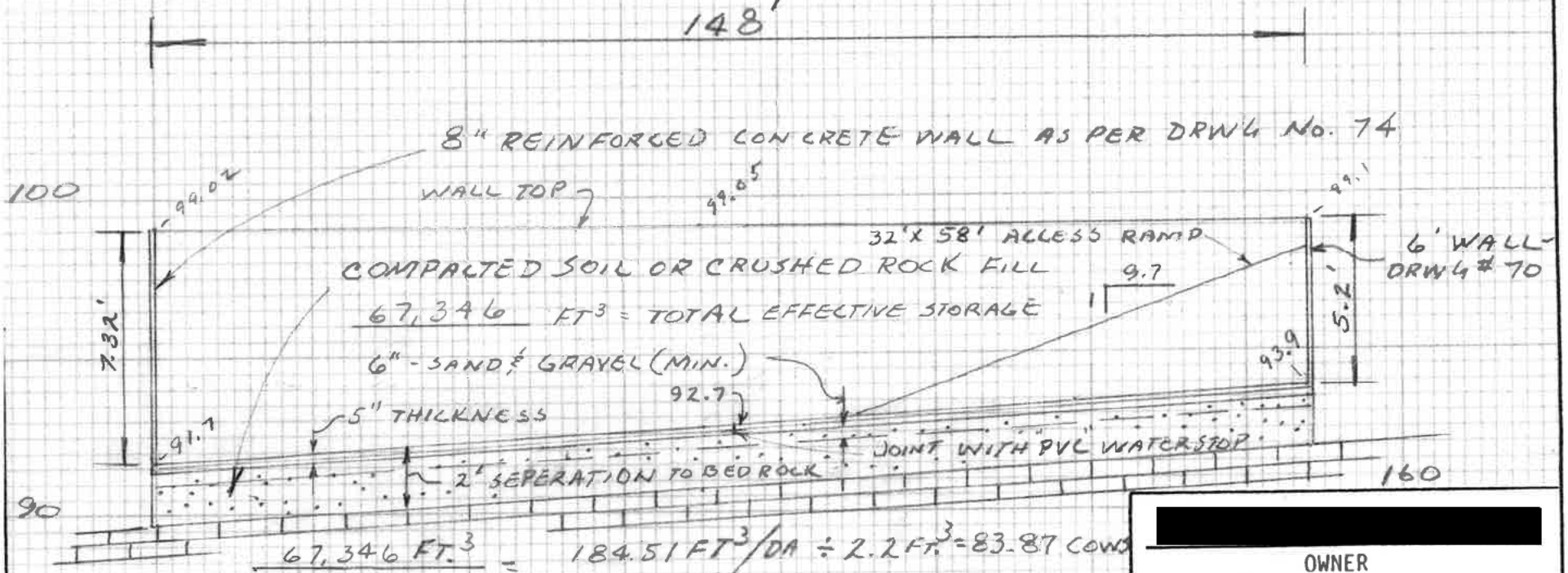
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DRAWING NO. WI-008 8/87

CAPACITY = $\left(\frac{7.32' + 5.2'}{2}\right)\left(\frac{148'}{1}\right)\left(\frac{78.3'}{1}\right)$ = 72,543.4 FT^3

RAMP DISPLACEMENT = $\left(\frac{0 + 5.6}{2}\right)\left(\frac{58'}{1}\right)\left(\frac{32' \text{ WIDE}}{1}\right)$ = 5197 FT^3

THEN 72,543 − 5197 = 67,346 FT.^{3}



$\frac{67,346 \text{ FT.}^3}{365 \text{ DA}}$ = 184.51 FT^3/DA ÷ 2.2 FT.^{3} = 83.87 COWS

THEN $\left(\frac{83.87 \text{ COWS}}{1} \times \frac{1.4 \text{ AU}}{\text{COW}}\right)$ = 117.4 AU.

PERMIT - ENTER CHART WITH 117 A.U. AND READ # 250.00

SECTION A-A

0 40 80 120

[redacted]

OWNER

BROWN LCC, WI

COUNTY

Designed: KKG Checked:

SHEET 8 OF _____

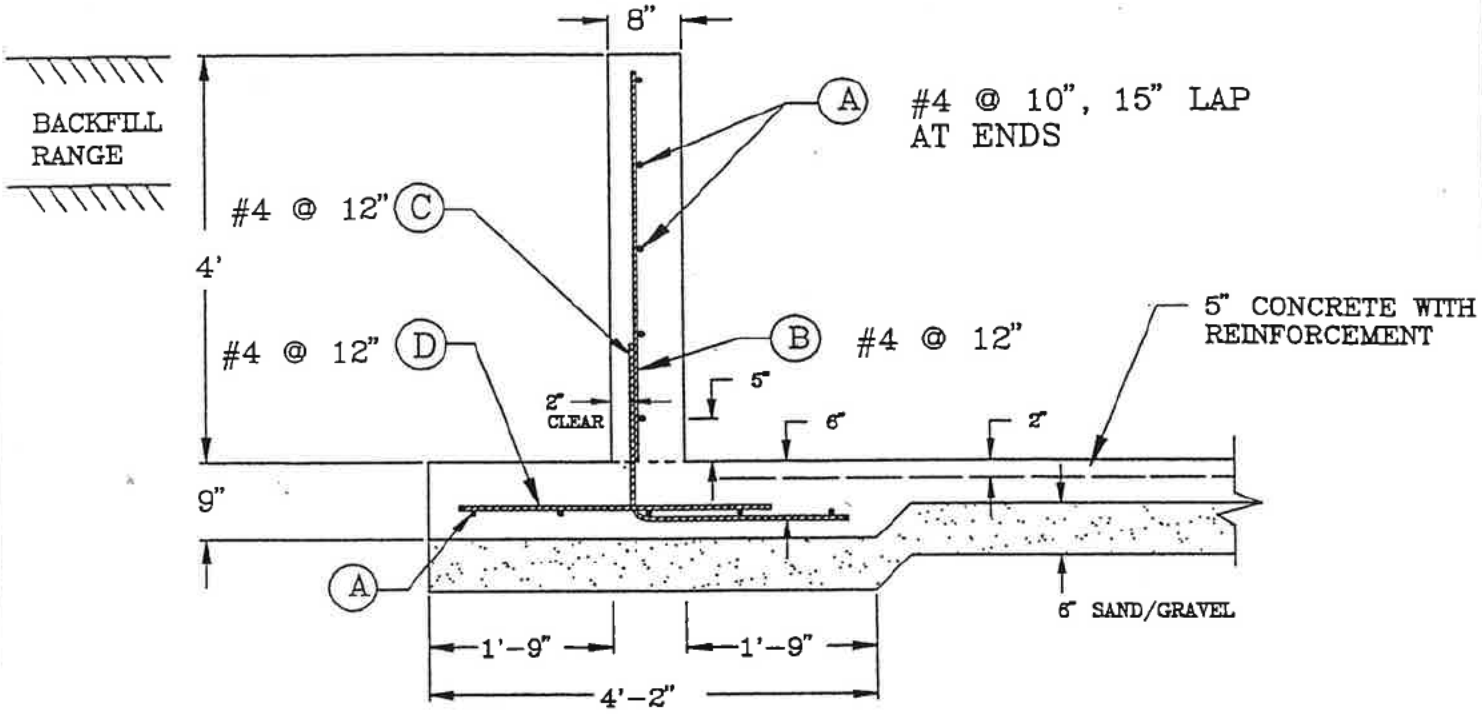
DESIGN VALUES

MANURE – 60 PCF, EQUIVALENT FLUID PRESS.
EARTH BACKFILL – 85 PCF, EQUIVALENT FLUID PRESS.
110 PCF, WEIGHT

WORKING STRESS DES.: f_c = 1400 psi f_s = 20,000 psi

CONDITIONS OF USE

BACKFILL – 3 – 4 FT.
TRACTOR SURCHARGE



TYPICAL SECTION

MATERIALS

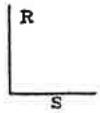
CONCRETE: SPEC. 4
STEEL: 40 GRADE REBARS

QUANTITIES: (WALL & FOOTING ONLY)

CONCRETE (.216 CU.YD. PER LIN. FT.) 6½ CU. YD.

STEEL: #4 (21.08 FT. PER LIN. FT.)* 632 FT.
* INCLUDES OVERLAP

TYPE 2



LINEAL FT. OF WALL : 30 FT.

STEEL SCHEDULE

MARK	SIZE	AM'T	TYPE	R	S	LENGTH	TOTAL LENGTH
A	#4		STR	——	——	20'–0"	309
B	#4	30	STR	——	——	3'–10"	115.0
C	#4	30	2	1'–8"	2'–0"	3'–8"	110.0
D	#4	30	STR	——	——	2'–11"	87.5
E	#4	5	2	2'–0"	2'–0"	4'–0"	20.0

4 FT. WALL WITH SURCHARGE

[redacted]

OWNER

DESIGNED: CHECKED:

SHEET 9 OF

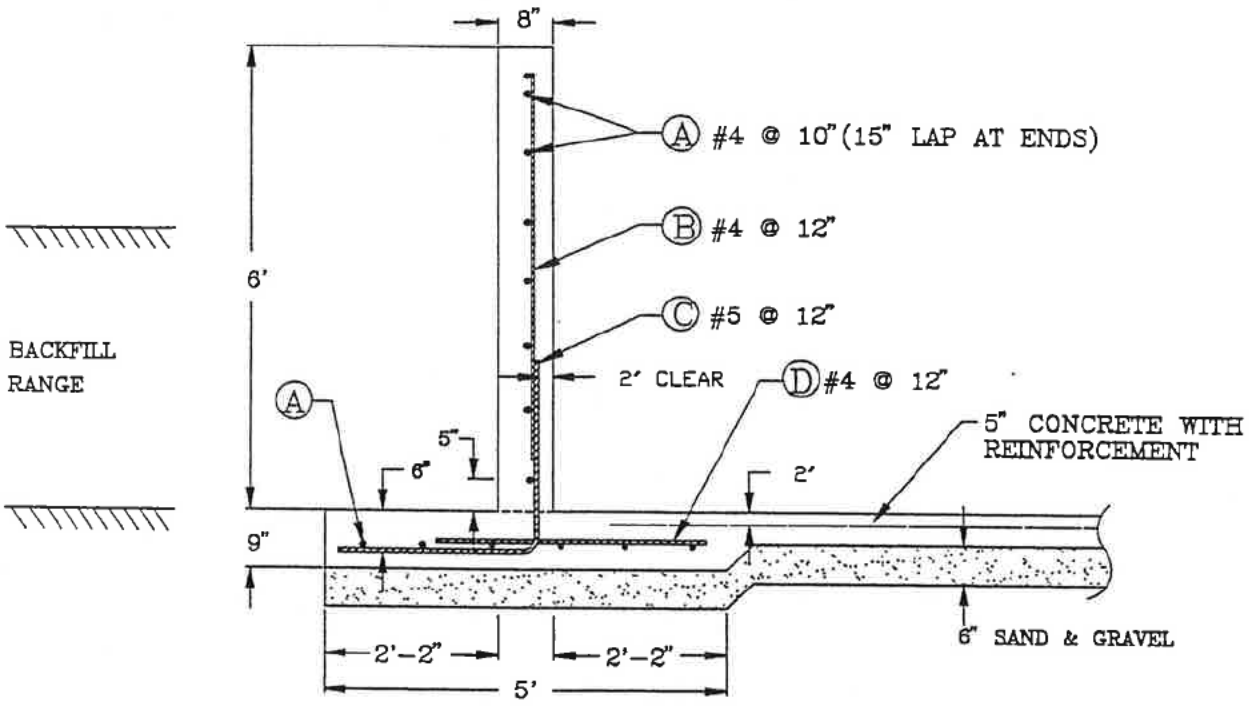
DESIGN VALUES

MANURE – 60 PCF, EQUIVALENT FLUID PRESS.
EARTH BACKFILL – 60 PCF, EQUIVALENT FLUID PRESS.
110 PCF, WEIGHT

WORKING STRESS DES.: f_c = 1400 psi f_s = 20,000 psi

CONDITIONS OF USE

BACKFILL – 0 – 4 FT.
NO SURCHARGE
SLAB MUST BE POURED WITH FOOTING



TYPICAL SECTION

MATERIALS

CONCRETE: SPEC. 4

STEEL: 40 GRADE REBARS

QUANTITIES: (WALL & FOOTING ONLY)

CONCRETE (.289 CU.YD. PER LIN. FT.) 30.3 CU. YD.

STEEL: #4 (23.27 FT. PER LIN. FT.)* 2444 FT.

#5 (5 FT. PER LIN. FT.)* 525 FT.

* INCLUDES OVERLAP

STEEL SCHEDULE

TYPE 2 (R, S)

MARK	SIZE	AM'T	TYPE	R	S	LENGTH	TOTAL LENGTH
A	#4		STR	—	—	20'-0"	
B	#4		STR	—	—	5'-0"	
C	#5		2	2'-6"	2'-6"	5'-0"	
D	#4		STR	—	—	3'-4"	
E	#4		2	2'-0"	2'-0"	4'-0"	

LINEAL FT. OF WALL : 105 FT.

6 FT. WALL

[redacted]

OWNER

DESIGNED: CHECKED:

SHEET 10 OF

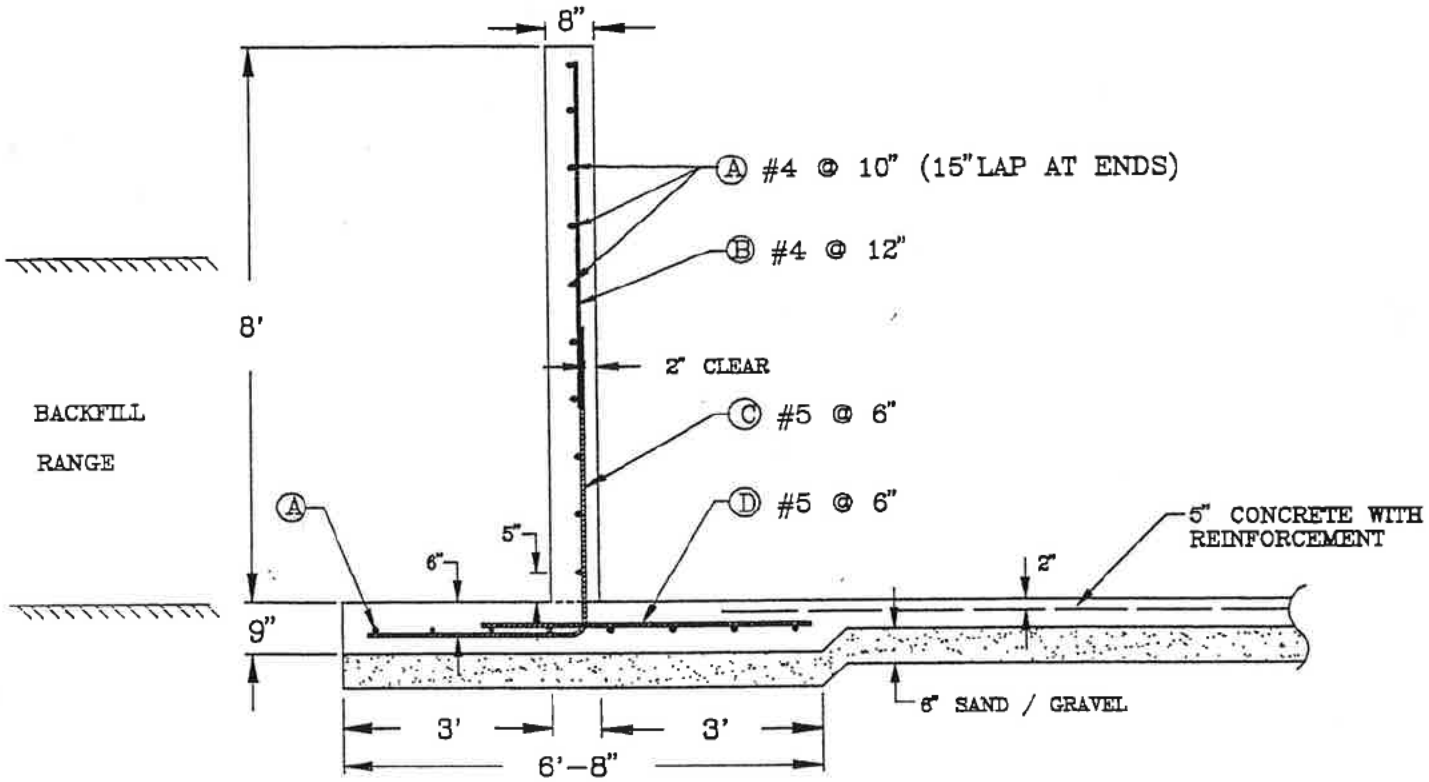
DESIGN VALUES

MANURE – 60 PCF, EQUIVALENT FLUID PRESS.
EARTH BACKFILL – 60 PCF, EQUIVALENT FLUID PRESS.
110 PCF, WEIGHT

WORKING STRESS DES.: f_c = 1400 psi f_s = 20,000 psi

CONDITIONS OF USE

BACKFILL – 0 – 5 FT.
NO SURCHARGE
SLAB MUST BE POURED WITH FOOTING



TYPICAL SECTION

MATERIALS

CONCRETE: SPEC. 4
STEEL: 40 GRADE REBARS

QUANTITIES: (WALL & FOOTING ONLY)

CONCRETE (.385 CU. YD. PER LIN. FT.) 72.4 CU. YD.
STEEL: #4 (24.20 FT. PER LIN. FT.)* 4550 FT.
#5 (24.34 FT. PER LIN. FT.)* 4575 FT.
* INCLUDES OVERLAP

STEEL SCHEDULE

MARK	SIZE	AM'T	TYPE	R	S	LENGTH	TOTAL LENGTH
A	#4		STR	—	—	20'–0"	
B	#4		STR	—	—	5'–0"	
C	#5		2	4'–5"	3'–4"	7'–9"	
D	#5		STR	—	—	4'–5"	
E	#4		2	2'–0"	2'–0"	4'–0"	

LINEAL FT. OF WALL : 188 FT.

TYPE 2 R S

8 FT. CONCRETE WALL

[redacted]

OWNER

DESIGNED: CHECKED:

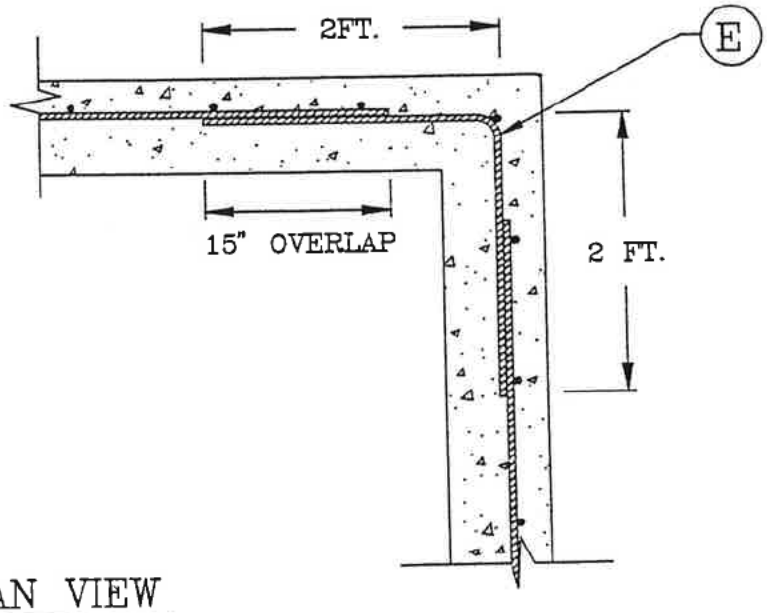
SHEET 11 OF

NOTES FOR CONCRETE WALLS

1. SURFACE DRAINAGE MUST BE AWAY FROM WALL.

2. THE SLAB REINFORCEMENT MUST EXTEND INTO THE FOOTING AND OVERLAP FOOTING STEEL 12" MIN.

3. MINIMUM CLEARANCE BETWEEN NEAREST EDGE OF STEEL AND NEAREST SURFACE OF CONCRETE IS 2 IN. FOR FORMED SURFACES AND 3 IN. FOR UNFORMED SURFACES



PLAN VIEW

NOTE: TO BE USED WITH DRAWING #'s 64, 69, 70, 75, & 76.

STANDARDIZED DESIGN; MUST BE ADAPTED TO THE SPECIFIC SITE

DESIGN FOLDER IS IN APPLETON OFFICE:

1011 N. LYNNDALE DRIVE

APPLETON, 54914-3091; (414) 734-2061

CORNER DETAIL, STEEL ON OUTSIDE

OWNER

Designed: Checked:

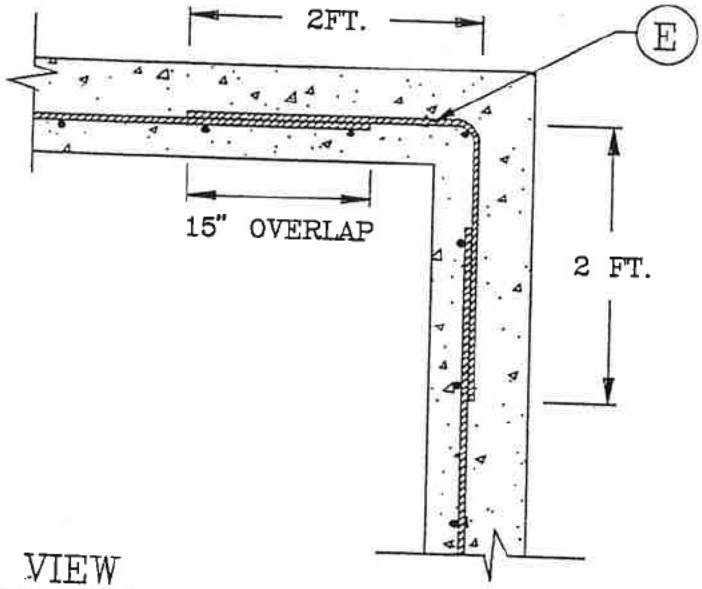
SHEET 12 OF _____

NOTES FOR CONCRETE WALLS

1. SURFACE DRAINAGE MUST BE AWAY FROM WALL. 2 FT OF BACKFILL IS RECOMMENDED.

2. THE SLAB REINFORCEMENT MUST EXTEND INTO THE FOOTING AND OVERLAP FOOTING STEEL 12" MIN.

3. MINIMUM CLEARANCE BETWEEN NEAREST EDGE OF STEEL AND NEAREST SURFACE OF CONCRETE IS 2 IN. FOR FORMED SURFACES AND 3 IN. FOR UNFORMED SURFACES



PLAN VIEW

NOTE: TO BE USED WITH DRAWING #'s 68, 71, & 74.

STANDARDIZED DESIGN; MUST BE ADAPTED TO THE SPECIFIC SITE

DESIGN FOLDER IS IN APPLETON OFFICE:
1011 N. LYNNDALE DRIVE
APPLETON, 54914-3091; (414) 734-2061

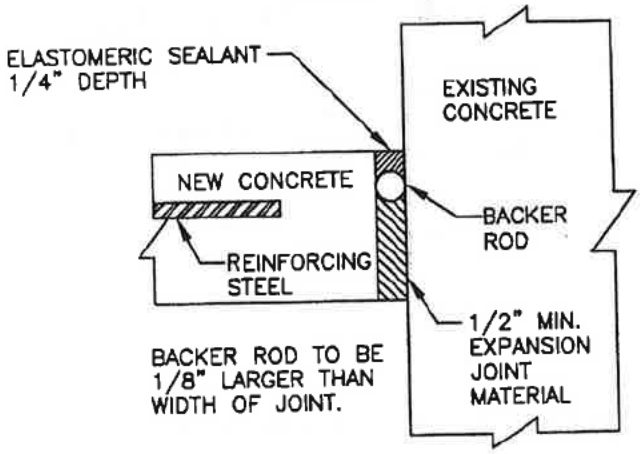
CORNER DETAIL, STEEL ON INSIDE

OWNER

Designed: Checked:

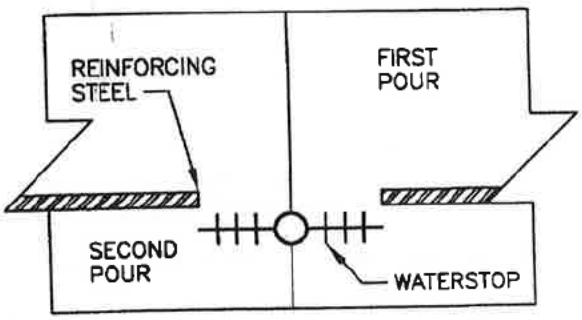
SHEET 13 OF _____

JOINT A



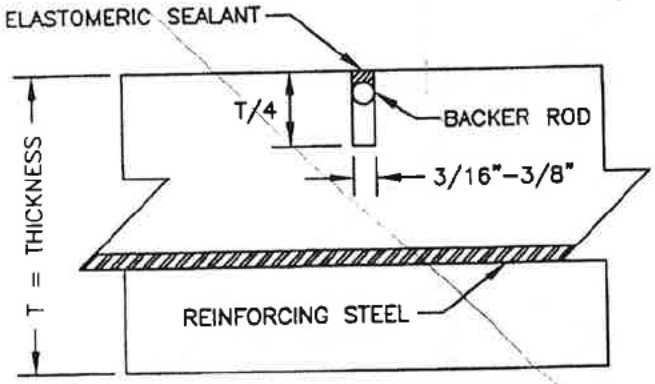
ISOLATION
CONSTRUCTION
CONTROL

JOINT B



CONSTRUCTION
CONTROL

JOINT C1

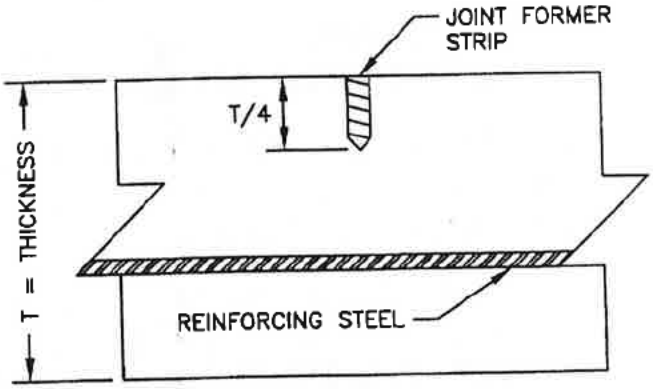


JOINT C1 SAW CUT

NOTE: BACKER ROD TO BE 1/8" LARGER THAN WIDTH OF SAW CUT. SEALANT DEPTH TO BE 1/4" OR SLIGHTLY LESS THAN JOINT WIDTH WHICH EVER GOVERNS.

CONTROL

JOINT C2



JOINT C2 JOINT FORMER STRIP

NOTE: REMOVE JOINT FORMER STRIP AND TREAT AS INDICATED FOR JOINT C1.

CONTROL

CROSS SECTIONS

SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

JOINT B ESTIMATED LENGTH 80 LIN. FT.

JOINT C ESTIMATED LENGTH ~~212~~ LIN. FT.

JOINT _____ ESTIMATED LENGTH _____ LIN. FT.

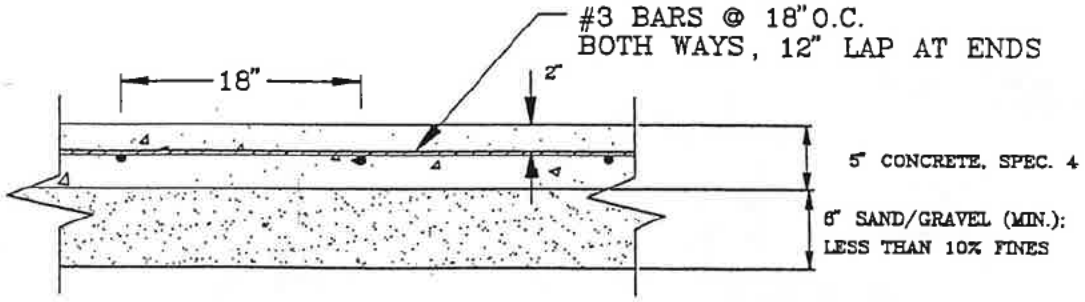
NOTE: THE MOST COMMON JOINT PURPOSE IS UNDERLINED.

LIQUID TIGHT SLAB JOINTS

OWNER

Designed: Checked:

SHEET 14 OF ____



TYPICAL SECTION

GENERAL CONSTRUCTION NOTES:

1. CONCRETE IS TO BE MIXED AND PLACED ACCORDING TO WIS. SPEC. 4.
2. JOINTS ARE TO BE SPACED ~~30'~~ 78' OR LESS EACH WAY, SEE SHEET 15.1.
3. WHITE CURING COMPOUND SHALL BE APPLIED TO CONCRETE AS SOON AS THE CONCRETE CAN BE WALKED ON.
4. SITE PREPARATION: REMOVE ALL ORGANIC AND UNCOMPACTED MATERIAL BEFORE PLACING SAND/GRAVEL SUBBASE.
5. ANY BARNYARD SLABS OR RAMPS ARE TO BE GROOVED. GROOVES: 1/2"x 1/2" – 4 INCHES APART; AT ANGLE TO EQUIPMENT TRAVEL
6. SAND/GRAVEL IS TO BE CLEAN PIT–RUN MATERIAL WITH LESS THAN 10% FINES. COMPACT IN 4" LAYERS WITH VIBRATING COMP–PACTOR. DAMPEN THE SAND/GRAVEL BEFORE THE CONCRETE IS POURED.

QUANTITIES:

CONCRETE SLAB (WALL FOOTINGS NOT INCLUDED) 166 CU.YD.

SAND/GRAVEL (CLEAN, LESS THAN 10% FINES) 730 CU.YD.

REBARS: (#~~4~~ #4 @ 18" O.C. BOTH WAYS) 15,740 LIN.FT.
(1.40 LIN.FT. PER SQ. FT.)

WHITE CURING COMPOUND (ASTM C–309, TYPE 2) 16,000 SQ.FT.

JOINTS: SEE JOINT DRAWINGS FOR TYPES AND LENGTHS.

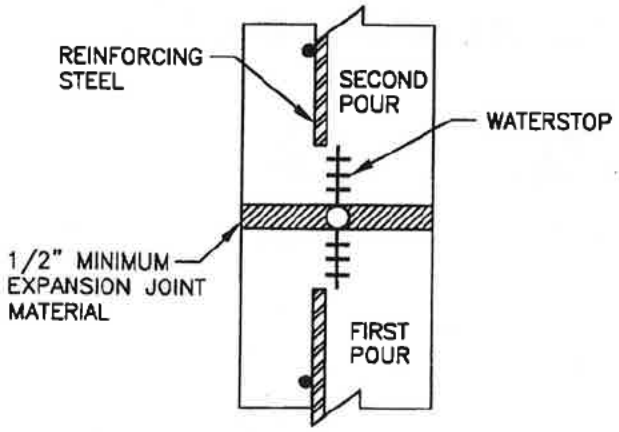
CONCRETE SLAB WITH REBARS

OWNER

DESIGNED: CHECKED:

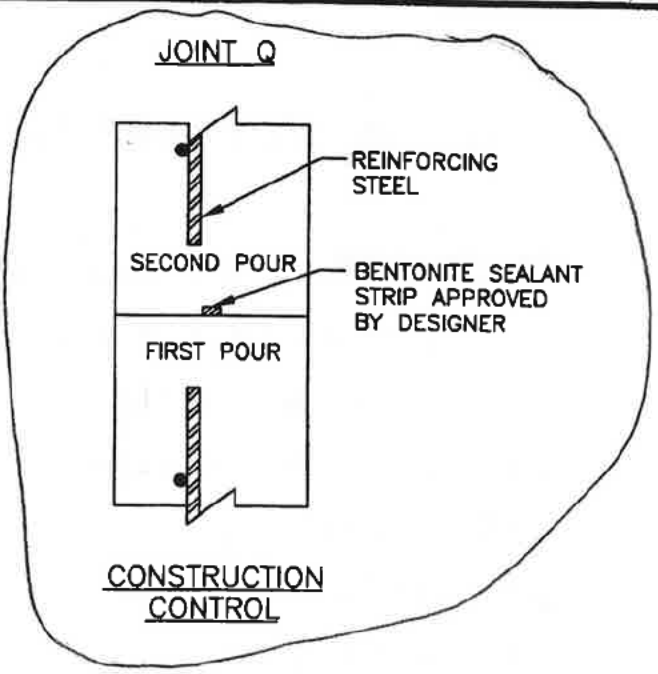
SHEET 14.1 OF

JOINT-P



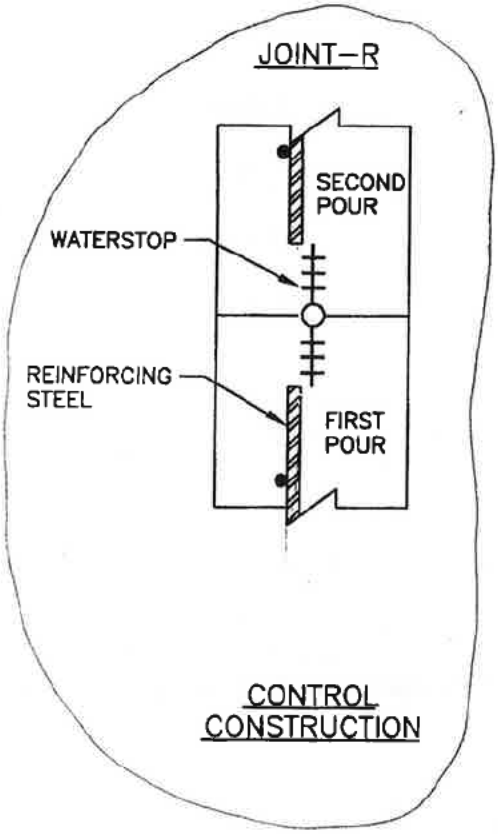
ISOLATION CONSTRUCTION CONTROL

JOINT Q



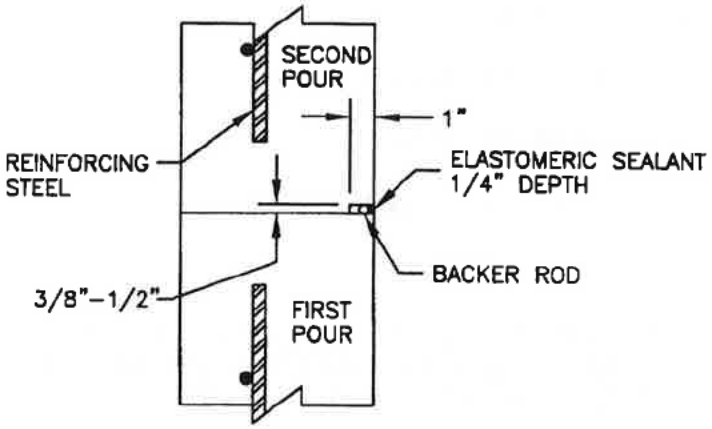
CONSTRUCTION CONTROL

JOINT-R



CONTROL CONSTRUCTION

JOINT S



NOTE: BACKER ROD TO BE 1/8" LARGER THAN WIDTH OF THE JOINT.
NOTCH FOR THE SEALANT TO BE FORMED IN EITHER THE FIRST OR SECOND POUR CONCRETE.

CONTROL CONSTRUCTION

PLAN VIEWS

JOINT R ESTIMATED LENGTH 8 LIN. FT.

JOINT Q ESTIMATED LENGTH 220 LIN. FT.

JOINT _____ ESTIMATED LENGTH _____ LIN. FT.

NOTE: THE MOST COMMON JOINT PURPOSE IS UNDERLINED.

LIQUID TIGHT WALL JOINTS

OWNER

Designed: Checked:

SHEET 15 OF ____

MAXIMUM DISTANCE BETWEEN CONTROL JOINTS FOR A 5-INCH SLAB

Reinforcement	A_s sq. in./ft.	f_y psi	L ft.
6 x 6 - W1.4 x W1.4 (10 Gage)	.028	65,000	27
6 x 6 - W2.0 x W2.0 (8 Gage)	.040	65,000	38
6 x 6 - W2.9 x W2.9 (6 Gage)	.058	65,000	56
#3 @ 18" C to C	.073	40,000	43
#3 @ 15" C to C	.088	40,000	52
#4 @ 18" C to C	.131	40,000	**78**
#4 @ 15" C to C	.157	40,000	93
#3 @ 18" C to C	.073	60,000	65
#3 @ 15" C to C	.088	60,000	78
#4 @ 18" C to C	.131	60,000	117
#4 @ 15" C to C	.157	60,000	140

It is absolutely essential for the reinforcing steel to be in the proper position to provide any advantages from its use. THE PROPER POSITION IS AT OR ABOVE THE MID-DEPTH OF THE SLAB.

A common practice is to specify that the steel be placed 1.5 to 2 inches below the top surface of the concrete slab.

Since positioning is critical, support devices are essential. The steel must be supported with devices spaced to maintain the steel in the correct position during concrete placement.

SHEET - 15.1

BROWN COUNTY
LAND CONSERVATION DEPARTMENT
ESTABLISHING AND MAINTAINING VEGETATION

1. Make plans for seeding after construction! Seed within 24 hours after construction.

2. Obtain needed materials.
   a. Lime. If needed, apply lime as recommended by soil test.
   b. Fertilizer. In lieu of a soil test, apply 400-600 lbs/acre of 20-10-10.
   c. Seed. Always check the label and seed in pure live seed rates.
   d. Mulch materials. Mulch with straw or hay that is reasonably free from grain or weed seed.

3. Prepare the seedbed with a disk or harrow. After applying fertilizer, work the soil to a depth of 3 inches. On small areas, handwork may be necessary. Failure will result if seedbed is not prepared correctly.

4. Mulch should be spread uniformly. The rate the mulch should be spread is 1.5 tons per acre; which is 60 bales per acre or 6 to 7 stems thick. A netting to secure mulch is always recommended.

5. Birdsfoot trefoil and crownvetch should be inoculated properly. Seed placement should be at a 1/4 to 1/2 inch deep and should be done immediately after seedbed preparation.

6. Maintain by controlling weeds and undesirable woody vegetation. Delay mowing until after July 15 to accommodate ground nesting wildlife. If pastured, always regulate grazing.

SEED RATES PER ACRE AND SEED NEEDED IN POUNDS

MIX# 12	LOCATION 0.2 ACRES		MIX#	LOCATION ACRES	
SPECIES	RATE PER ACRE	#SEED NEEDED	SPECIES	RATE PER ACRE	#SEED NEEDED
SMOOTH BROME	25	5			
TIMOTHY	9	2			
RED CLOVER	4	1			

ADDITIONAL COMMENTS: AREA TO BE VEGETATED IS THE EARTH FILL AROUND THE PERIMETER OF THE STRUCTURE. APPROXIMATELY 25' WIDE FOR 310 LNFT = 7750 FT.² OR 0.2 AC.

OWNER [redacted]

DESIGNED: YAP CHECKED: _____

SHEET 16 OF _____